

We claim:-

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1. A process for the preparation of low-odor flexible polyurethane foams by reacting organic and/or modified organic polyisocyanates (a) with a polyetherol mixture (b) and, if required, further compounds (c) having hydrogen atoms reactive toward isocyanates, in the presence of water and/or other blowing agents (d), catalysts (e), flameproofing agents (f) and, if required, further assistants and additives (g), wherein the polyetherol mixture (b) consists of

5 b1) at least one difunctional to octafunctional polyetherol based on ethylene oxide and, if required, propylene oxide and/or butylene oxide, having an ethylene oxide content of at least 30% by weight, based on the total amount of alkylene oxide used, and an OH number of from 20 to 10 200 mg KOH/g, and

15 b2) at least one polyetherol based on propylene oxide and/or butylene oxide and, if required, ethylene oxide, having an OH number greater than 20 mg KOH/g, the ethylene oxide content being less than 30% by weight, based on the total amount of alkylene oxide used,

20 25 and the foaming is effected in an index range of less than 150, the catalyst used comprising at least one catalyst supporting the polyisocyanurate reaction.

30 2. A process as claimed in claim 1, wherein the ethylene oxide content of the polyol (b1) is more than 60% by weight, based on the total amount of alkylene oxide used.

35 3. A process as claimed in claim 1 or 2, wherein the polyol (b1) has more than 30% of primary OH groups.

40 4. A process as claimed in any of claims 1 to 3, wherein the polyol (b1) is used in amounts of at least 30% by weight, based on the total weight of the component (b).

45 5. A process as claimed in any of claims 1 to 4, wherein the polyol (b2) is used in amounts of less than 70% by weight, based on the total weight of the component (b).

6. A process as claimed in any of claims 1 to 5, wherein water is used as blowing agent (d) in amounts of from 1 to 10, preferably from 1 to 5, % by weight, based on the total weight of the components (b) to (g).

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7. A process as claimed in any of claims 1 to 5, wherein the catalyst (e) used is an alkali metal salt and/or alkaline earth metal salt.

10 8. A process as claimed in any of claims 1 to 5, wherein the catalyst (e) used is potassium acetate.

9. A process as claimed in any of claims 1 to 8, wherein the flameproofing agents (f) are halogen-free.

15 10. A process as claimed in any of claims 1 to 9, wherein the flameproofing agents (f) used are melamine and, if required, expanded graphite.

20 11. A process as claimed in any of claims 1 to 10, wherein the organic and/or modified organic polyisocyanates (a) used are tolylene diisocyanate, mixtures of diphenylmethane diisocyanate isomers, mixtures of diphenylmethane diisocyanate and polyphenylpolymethylene polyisocyanate or tolylene diisocyanate with diphenylmethane diisocyanate and/or polyphenylpolymethylene polyisocyanate.

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12. A process as claimed in any of claims 1 to 10, wherein the organic and/or modified organic polyisocyanates (a) used are NCO-containing prepolymers formed from the reaction of the isocyanates (a) with the polyetherols (b) and, if required, components (c) and/or (d).

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13. A process as claimed in any of claims 1 to 12, wherein the foaming is effected in an index range of from 50 to 150.

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14. A low-odor flexible polyurethane foam, which can be prepared as claimed in any of claims 1 to 13.

40 15. The use of a flexible polyurethane foam as claimed in claim 14 as carpet, upholstery, seat and packaging material and in the hygiene sector.